

CLAIMS

What is Claimed is:

1. A single layer nonwoven fabric useful as a fireblocking component for mattresses comprising:
 - 5 a) at least 0.5 ounces per square yard (17 grams per square meter) of a cellulose fiber that retains at least 10 percent of its fiber weight when heated in air to 700°C at a rate of 20 degrees C per minute,
 - b) at least 0.5 ounces per square yard (17 grams per square meter) of a organic fiber that retains 90 percent of its fiber weight when
10 heated in air to 500°C at a rate of 20 degrees C per minute,
 - c) the fabric having a basis weight having at least 2.5 ounces per square yard (85 grams per square meter), a density of at least 0.16 gram/cm³, and an air permeability of 70 meters/min (225 ft/min) or less.
- 15 2. The fabric of claim 1 having a basis weight of from 2.5 to 7 ounces per square yard (85 to 237 grams per square meter).
3. The fabric of claim 2 wherein the organic fiber is a fiber comprising para-aramid polymer.
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4. The fabric of claim 3 wherein the para-aramid is poly(p-phenylene terephthalamide).
5. The fabric of claim 2 wherein the cellulose fiber is a viscose
25 fiber containing silicic acid.
6. The fabric of claim 1 wherein the single layer nonwoven fabric further comprises an off gassing material that releases a flame suppressing gas when burned.
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7. The fabric of claim 6 wherein the off gassing material is a modacrylic fiber.

8. The fabric of claim 6 wherein the off gassing material is a polyvinylchloride fiber.

5 9. A fireblocked mattress comprising:

a) a mattress core,

b) a panel comprising a single layer nonwoven fireblocking fabric,
and

10 c) ticking having a basis weight in the range of 2 to 8 ounces per square yard (68 to 271 grams per square meter),

the single layer nonwoven fabric comprising (i) at least 0.5 ounces per square yard (17 grams per meter) of a cellulose fiber that retains at least 10 percent of its fiber weight when heated in air to 700°C at a rate of 20
15 degrees C per minute, and (ii) at least 0.5 ounces per square yard (17 grams per meter) of an organic fiber that retains 90 percent of its fiber weight when heated in air to 500°C at a rate of 20 degrees C per minute, the fabric having a basis weight of at least 2.5 ounces per square yard (85 grams per square meter), a density of at least 0.16 gram/cm³, and an air
20 permeability of 70 meters/min (225 ft/min) or less.

10. The fireblocked mattress of claim 9 further comprising a border comprising the single layer nonwoven fabric.

25 11. The fireblocked mattress of claim 9 wherein the organic fiber is a fiber comprising para-aramid polymer.

12. The mattress of claim 11 wherein the para-aramid is poly(p-phenylene terephthalamide).

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13. The mattress of claim 9 wherein the cellulose fiber is a viscose fiber containing silicic acid.

14. The mattress of claim 9 wherein the single layer nonwoven fabric further comprises an off gassing material that releases a flame suppressing gas when burned.

5 15. The mattress of claim 14 wherein the off gassing material is a modacrylic fiber.

16. The mattress of claim 14 wherein the off gassing material is a polyvinylchloride fiber.

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17. The mattress of claim 9 wherein the continuous nonwoven fireblocking fabric comprises a seam sewn with fire resistant thread.

15 18. The mattress of claim 17 wherein the fire resistant thread comprises para-aramid or glass thread.

19. A process for fireblocking a mattress having a mattress core comprising:

20 providing the mattress core with a single layer nonwoven fabric useful as a fireblocking component for mattresses comprising:

a) at least 0.5 ounces per square yard (17 grams per meter) of a cellulose fiber that retains at least 10 percent of its fiber weight when heated in air to 700°C at a rate of 20 degrees C per minute, and

25 b) at least 0.5 ounces per square yard (17 grams per meter) of an organic fiber that retains 90 percent of its fiber weight when heated in air to 500°C at a rate of 20 degrees C per minute,

the fabric having a basis weight of at least 2.5 ounces per square yard (85 grams per square meter), a density of at least 0.16 gram/cm³, and an air permeability of 70 meters/min (225 ft/min) or less.

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20. The process for fireblocking the mattress of claim 19 wherein the organic fiber is a fiber comprising para-aramid polymer.

21. The process for fireblocking the mattress of claim 20 wherein the para-aramid is poly(p-phenylene terephthalamide).

22. The process for fireblocking the mattress of claim 19 wherein
5 the cellulose fiber is a viscose fiber containing silicic acid.

23. The process for fireblocking the mattress of claim 19 wherein the single layer nonwoven fabric further comprises an off gassing material that releases a flame suppressing gas when burned.
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24. The process for fireblocking the mattress of claim 23 wherein the off gassing material is a modacrylic fiber.

25. The process for fireblocking the mattress of claim 23 wherein
15 the off gassing material is a polyvinylchloride fiber.